SHARPIN, Semen Andreyevich; VITVITSKIY, M., red.; BURKATOVSKAYA, TS.,
tekhn. red.

[Tables for calculating the wages of workers and office employees
for vacation time or compensation for unused leave; revised to
take into consideration the change in the price scale and
substitution of the new currency] Tablitsy dlia ischisleniia sred-
nego zarabotka rabochikh i sluzhashchikh za vremia otpuska ili
kompensatsii za neispol'zovannyi otpusk; pererabotany s uchetom
izmeneniia masshtabe tsen i zamenoi obrashchaiushchikhsia deneg
novymi den'gami. L'vov, knizhno-zhurnal'noe izd-vo, 1961. 142 p.
(MIRA 14:9)

(Wages--Tables and ready reckoners)

SUKHOMLINA, Z.I.; VITVITSKIY, M. [Vitvits'kyi, M.], red.; DOROSHENKO, M.,
     red.; NEDOVIZ, S., tekhn. red.

     [Useful advice] Knyzhkovo-zhurnal'ne vyd-vo, 1961.   182 p.
                                                    (MIRA 14:10)

          (Cookery)   (House furnishings)

KARPENKO, G.V., red.; VITVITSKIY, M., red.

[Corrosion fatigue of metals; collection of reports]
Korrozionnaia ustalost' metallov; sbornik dokladov.
L'vov, Kameniar, 1964.   234 p.   (MIRA 18:11)

1. Vsesoyuznoye soveshchaniye po korrozionnoy ustalosti
metallov, Lvov, 1962. 2. Chlen-korrespondent AN Ukr.SSSR
i Institut mashinovedeniya i avtomatiki AN Ukr.SSR (for
Karpenko).

VITVITSKIY, N.K., Cand Tech Sci -- (diss) "Approximate method
of determining the frequencies of natural bending, torsion,
and joint oscillations of girders of changing *variable* cross-section."
Tomsk, 1959, 12 pp (Min of Railway Transport USSR. Len Order
of Lenin Inst of Engineers of Railroad Transport im Academician
V.N. Obraztsov) 120 copies (KL, 28-59, 126)

VITVITSKIY, N.K.

VITVITSKIY, N.K.

Approximate method for determining frequencies of natural bending,
torsional, and joint vibration of bars with variable cross-sections.
Trudy TEIIZHT 25:229-256 '58.   (MIRA 13:10)

1. Kafedra matematiki Tomskogo elektromekhanicheskogo instituta
inzhenerov zheleznodorozhnogo transporta.
                     (Vibration)

VITVITSKIY, V. M., Cand Med Sci (diss) -- "The antimicrobal and therapeutic

properties of combinations of certain antibiotics". Khar'kov, 1960. 12 pp

(Khar'kov State Med Inst), 200 copies (KL, No 14, 1960, 136)

VITVITSKIY, N.K.

Determining the frequency of natural bending vibrations
of beams beyond the elasticity boundary in the presence
of plasticity zones. Trudy TEIIZHT 34:103-120 '62.
(MIRA 16:8)

VITVITSKIY, P.M. [Vytvyts'kyi, P.M.]; LEONOV, M.Ya.

Dislocation with an elliptical hollow. Dop.AN URSR no.3:
314-317 '60.   (MIRA 13:7)

1. Institut mashinovedeniya i avtomatiki AN USSR. Predstavleno
akademikom AN USSR G.N.Savinym [H.M.Savinym].
                (Dislocations in crystals)

VITVYTSKIY , P.M .

10.7600

AUTHORS: Vytvyts'kyy, P.M., and Leonov, M.Ya., (L'viv)

TITLE: On the fracture of a plate having a crack

TEXT: An infinite plate with a crack of length $2l$ (see Fig.) is under stresses, normal to the crack. Fracture occurs at the value σ_∞ of stress. It is assumed that the maximum normal stresses do not exceed a certain fixed value (the limit strength of the material):

$$\sigma_{max} \leqslant \sigma_{ts}; \qquad (1)$$

Hooke's law applies; if a stress-strain state occurs which does not comply with linear theory, nor with condition (1), then breaches (regions of weakened bonds) appear in the body; the effect of these breaches depends on the critical distance δ_{cr}. For an ideal brittle (amorphous) body, δ_{cr} is found from

Card 1/6

On the fracture of a plate ...

$$\delta_{cr} = \frac{2T}{\sigma_{\ell s}}, \qquad (2)$$

T being the surface energy of the material. For various materials, whose fracture is accompanied by microplastic deformations, the quantity δ_{cr} can be experimentally determined. In the above model, the breaches always occur (notwithstanding very small σ_{∞}), hence the fracture (crack) is enlarged (see Fig.), and

$$X_y(x, \pm 0) = 0; \quad Y_y(x, \pm 0) = \begin{cases} 0, & /x/ < \ell; \\ \sigma_{\ell s}, & \ell \leqslant /x/ \leqslant L. \end{cases} \qquad (3)$$

The length 2L of the enlarged fracture is unknown; it has to be determined in accordance with (1). This problem is solved by N.I. Muskhelishvili's method (Ref. 2: Nekotoryye osnovnyye zadachi matematicheskoy teorii uprugosti, AN SSSR, 1954). After computations, one obtains

Card 2/6

On the fracture of a plate ...

$$L = l \sec \frac{\pi \sigma_\infty}{2\sigma_{ls}}. \tag{15}$$

Formulas for the stresses in the plate are derived, in particular, on the real axis, for $L < /x/ < \infty$, one obtains

$$Y_y = \sigma_\infty - \frac{2\sigma_{ls}}{\pi} \text{arctg} \frac{\sqrt{L^2 - l^2}}{l^2 - x^2 - x\sqrt{x^2 - L^2}}; \tag{17}$$

$$X_x = -\frac{2\sigma_{ls}}{\pi} \text{arctg} \frac{l\sqrt{L^2 - l^2}}{-x^2 - x\sqrt{x^2 - L^2}}; \quad X_y = 0.$$

For the quantity δ, which denotes the distance traversed by the points $(\pm l, +0)$ and $(+ l, -0)$ of opposite surfaces of the breach as a result of the deformation, one obtains

$$\delta = -\frac{8l}{\pi E} \sigma_{ls} \ln \cos \frac{\pi \sigma_\infty}{2\sigma_{ls}}. \tag{18}$$

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S/198/61/007/005/007/015
D274/D303

On the fracture of a plate ...

By the adopted model, these opposite surfaces will no longer inter-act if $\delta > \delta_{cr}$, hence the fracture increases. Thus, the critical stress σ_{cr} is such a value of σ_{∞} that $\delta = \delta_{cr}$. Hence (18) yields

$$\sigma_{cr} = \frac{2}{\pi} \sigma_{\ell s} \arccos \exp \left(- \frac{\pi E \delta_{cr}}{8 \ell \sigma_{\ell s}} \right).$$
(19)

For $\sigma_{cr} \ll \sigma_{\ell s}$,

$$\sigma_{cr} = \sqrt{\frac{E \sigma_{\ell s} \delta_{cr}}{\pi \ell}}.$$
(20)

For brittle materials, one obtains from (2) and (20) Griffith's formula:

$$\sigma_{cr} = \sqrt{\frac{2ET}{\pi \ell}}.$$
(21)

For $\ell \rightarrow 0$, formula (21) yields infinitely large σ_{cr}; this disad-

Card 4/6

On the fracture of a plate ...

vantage is not shared by formula (19) which yields (for $\ell \rightarrow 0$), $\sigma'_{cr} \rightarrow \sigma'_{\ell s}$, i.e. the strength of plate with "zero" crack equals the strength of a faultless plate. Griffith's results are also unsuitable for very small cracks. Formulas (19) and (20) can also be used for fracture processes accompanied by microplastic deformations. Thereby, $\sigma_{\ell s} \delta_{cr}$ (denoted by A) is the work expended on the formation of two surfaces of same area during the development of a breach. Hence formulas (19) and (20) are written

$$\sigma'_{cr} = \frac{2}{\pi} \sigma_{\ell s} \text{ arccos } \exp \left(- \frac{\pi EA}{8\ell \sigma_{\ell s}^2}\right), \qquad (22)$$

$$\sigma_{cr} = \sqrt{\frac{EA}{\pi \ell}} \qquad (\sigma_{cr} \ll \sigma_{\ell s}). \qquad (23)$$

Formula (22), proposed by Urowan, remains valid for any σ_{or}, even if σ_{cr} is of the same order as $\sigma_{\ell s}$. There are 1 figure and 5 refe-

Card 5/6   ⅄

On the fracture of a plate ...
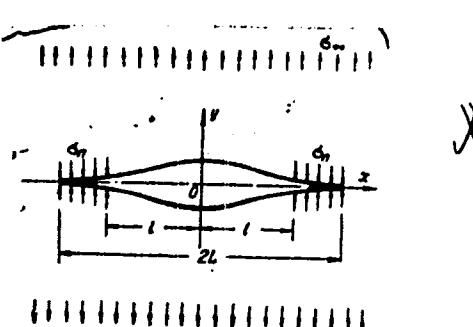
29227
S/198/61/007/005/007/015
D274/D303

rences: 3 Soviet-bloc and 2 non-Soviet-bloc. The references to English-language publications read as follows: A.A. Griffith, Phenomena of rupture and flow in solids, Trans. Roy. Soc., A 221, London, 1920; E. Orowan, Energy criteria of fracture, Welding J., March 1955.

ASSOCIATION: Instytut mashynosnavstva i avtomatyky AN USSR (Institute of the Science of Machines and Automation AS Ukr-SSR)

SUBMITTED: June 10, 1960

Fig.

Card 6/6

h2175
S/613/62/000/001/001/008
E061/E183

AUTHORS: Vitvitskiy, P.M., and Leonov, M.Ya.

TITLE: Slip bands in the heterogeneous deformation of
a plate

SOURCE: Akademiya nauk Ukrayins'koyi RSR. Instytut
mashynoznavstva i avtomatyky, L'viv. Voprosy mekhaniki
real'nogo tverdogo tela. no. 1. Kiev, 1962, 13-28.

TEXT: The paper is a continuation of previous work
(M.Ya. Leonov, N.Yu. Shvayko, Zhurnal prikladnoy mekhaniki i
tekhnicheskoy fiziki, no.2, 1961. P.M. Vitvitskiy, M.Ya. Leonov,
DAN URSR, no.3, 1960. P.M. Vitvitskiy, M.Ya. Leonov, Prikladna
mekhanika, v.7, no.5, 1961). The problem of the elasto-plastic
deformation of a body may be reduced to the linearly elastic .
problem of a material containing a distribution of dislocations.
In accordance with this concept, the plane stress state is
·investigated in a thin plate containing a slit or a circular hole
and subjected to a stress system which at infinity becomes
Y_y = p (tensile), $X_x = X_y = 0$. At a certain stress slip bands

Card 1/2

Slip bands in the heterogeneous ...   S/613/62/000/001/001/006
                                       E001/E163

develop; the Muskhelishvili stress functions appropriate to the
region surrounding a circular hole are quoted, and the modified
functions applicable in the presence of distributed dislocations
are derived. The problem of the elasto-plastic deformation of a
plate with a slit involves determining the distribution of
dislocations, and leads to an integral equation the solution of
which gives the conditions for the formation of slip bands.
Initially, the slip bands are parallel with the slit, but later,
bands develop which are inclined at an angle of about 50° to the
slit; these findings agree with observations on soft steel plate.
An analogous treatment is applied to a plate containing a hole.
In this case a polynomial solution is found for the integral
equation, and by limiting the number of terms in the polynomial
the solution is evaluated approximately.
There are 6 figures and 1 table.

SUBMITTED: June 10, 1961

Card 2/2

/0. 7/00

AUTHORS: Vitvitskiy, P. M., Leonov, M. Ya. (L'vov)

TITLE: Extension beyond the elastic limit of a plate with circular
opening

PERIODICAL: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 1,
1962, 109 - 117

TEXT: Conditions are laid down under which the deformation of a body
beyond the elastic limit can be studied with the linear elastic theory
of the deformation of a body with linear dislocations distributed according
to a certain law. The distribution of these dislocations and the
dimensions of the region in which they occur are determined from the given
forces of the inelastic bonds and from the condition of conservation of
elasticity outside the inelastic deformations. On the basis of such a
model the stress in a thin infinitely long plate with a circular opening
(Fig. 1) subjected to forces p is studied. Stress and strain in the
complex plane which result only from the load are determined by the
functions
Card (1/0) 3

Extension beyond the elastic limit...

$$\Phi^o(z) = \tfrac{1}{4} p\left(1 + 2\tfrac{R^2}{z^2}\right), \qquad \Psi^o(z) = \tfrac{1}{2} p\left(1 + \tfrac{R^2}{z^2} + 3\tfrac{R^4}{z^4}\right) \qquad (1.1).$$

That part of the stress produced by the dislocations is determined in such a way that in the regions of inelastic deformation the sum of the stresses produced by p and those produced by the dislocations fulfills the condition

$$Y_y^o(x, 0) + Y_y^*(x, 0) = \sigma_H = \text{const} \qquad (R < |x| < L) \qquad (1.3).$$

Some auxiliary problems about linear dislocations in the plane that are necessary for the present problem are investigated with reference to a paper by N. I. Muskhelishvili (Nekotoriye osnovyye zadachi matematicheskoy teorii uprugosti, Izd-vo AN SSSR, 1954). The integral equation

$$\int_R^L \left\{ \frac{t}{t^2 - x^2} + \frac{R^4}{t}\left[\frac{1}{R^2 x^2} + \frac{R^4(x^2 - t^2)}{x^2(t^2 x^2 - R^4)^2} + 4t^2 R^2 \frac{(t^2 - R^2)(x^2 - R^2)}{(t^2 x^2 - R^4)^3}\right]\right\} \mu(t)\, dt =$$
$$= \frac{1}{4D}\left[\sigma_H - \tfrac{1}{2} p\left(2 + \tfrac{R^2}{x^2} + 3\tfrac{R^4}{x^4}\right)\right] (R < |x| < L) \qquad (3.2)$$

for the density $\mu(t)$ of the dislocation distribution is solved in the variables

Card 2/8 3

Extension beyond the elastic limit...

$$S/207/62/000/001/016/018$$
$$B104/B108$$

$$\xi = \frac{x^2}{R^2}, \qquad \eta = \frac{l^2}{R^2}$$

by approximation:

$$\frac{L^2}{R^2} = \alpha, \qquad \mu(l) = \mu(R\sqrt{\eta}) = \mu_0(\eta)$$

$$\mu_0(\eta) \approx \frac{\sigma_n}{D} \sum_{n=0}^{m} a_n \eta^n \qquad (1 \leqslant \eta \leqslant \alpha)$$

$$(3.4).$$

α characterizes the length of the region of inelastic deformation. The dependence of the length l of the region of the inelastic deformation on the radius R is calculated as a function (Fig. 3). Finally, the critical load for brittle rupture of the plate is determined. There are 4 figures, 1 table, and 10 references: 9 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: Griffith A. A., Phenomena of Rupture and Flow in Solids, Trans. Roy. Soc., A 221, London, 1920.

Card 3/8

VITVITSKIY, P.M.

33751

10.7600   1327   4016

S/021/62/000/002/006/010
D299/D304

AUTHORS: Vytvyts'kyy, P. M. and Leonov, M. Ya.

TITLE: Brittle fracture of plate with circular hole

PERIODICAL: Akademiya nauk UkrRSR. Dopovidi. no. 2, 1962, 174-178

TEXT: An infinite plate with a circular hole of radius R is sub-
jected to stresses which create (at infinity) the uni-axial stres-
ses state $Y_y^\infty = p$, $X_x^\infty = X_y^\infty = 0$. It is assumed that the material of
the plate corresponds to the simplified model of a brittle body
(Ref. 1: M. Ya. Leonov, Inform. byull., no. 1, VINITI AS SSSR,
1960, p. 16). According to this model, at first, cracks appear,
whose sides are attracted towards each other as long as the distan-
ce between them does not exceed a certain value δ (which is consi-
dered as a constant of the material); when this distance is rea-
ched, the interaction between the sides ceases and local fracture
occurs; the corresponding load is called critical. The component v
of the displacements, normal to the cracks, has a discontinuity
Card 1/7

Brittle fracture of ... .

$\lambda(x)$. The discontinuities are related to linear dislocations. Muskhelishvili's function for a linear dislocation is

$$\Phi_1(z) = \Psi_1(z) = D\frac{\lambda}{z} \qquad (4)$$

where $D = \dfrac{G}{\pi(1+\varkappa)}$; G is the shear modulus, $\varkappa = 3-4\nu$ (for plane strain) and $\varkappa = (3-\nu)/(1+\nu)$ - for plane stress. In the case of a pair of dislocations λ and $-\lambda$ which pass through the points t and $-t$ of the real axis, one obtains

$$\Phi_2(z) = -2D\frac{\lambda t}{z^2 - t^2}, \quad \Psi_2(z) = -4D\frac{\lambda t z^2}{(z^2 - t^2)^2} \qquad (5)$$

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Brittle fracture of ...

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Further, Muskhelishvili's function for a pair of linear disloca-
tions in a plane with a hole is derived. The discontinuity is ex-
pressed by

$$v(x,+\ 0) - v(x,-\ 0) = \lambda(x) = \int_L^x \mu(t)dt \quad (R \leqslant |x| \leqslant L) \qquad (8)$$

The function $\mu(t) = \lambda'(t)$ is called the density-distribution of
dislocations. After a change of variables (in particular $t^2/R^2 = \eta$,
$\mu(t) = \mu(R\sqrt{\eta}) = \mu_0(\eta))$, one obtains the integral equation for μ_0:

$$\int_1^\infty \left[\frac{1}{\eta - \xi} + \frac{1}{\xi\eta} + \frac{\xi - \eta}{2\xi(\xi\eta - 1)^2} + \frac{4(\eta - 1)(\xi - 1)}{(\xi\eta - 1)^3} \right] \mu_0(\eta)d\eta +$$

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Brittle fracture of ...

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$$+ \frac{p}{4D} \left(2 + \frac{1}{\xi} + \frac{3}{\xi^2} \right) = \frac{\sigma_o}{2D}, \qquad 1 \leqslant \xi \leqslant \alpha \tag{9}$$

The approximate solution of this equation is sought in the form of a polynomial with unknown coefficients a_n, viz.:

$$\mu_o(\eta) \approx \frac{\sigma_o}{D} \sum_{n=0}^{m} a_n \eta^n \quad (1 \leqslant \eta \leqslant \alpha) \tag{10}$$

Substituting (10) in (9), one obtains

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Brittle fracture of ...

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$$\sum_{n=0}^{m} a_n J_n(\alpha, \xi) + \frac{p}{\sigma_0} f(\xi) \approx \frac{1}{2} \qquad (1 \leqslant \xi \leqslant \alpha) \qquad (11)$$

For (11) to hold, it is necessary that

$$\sum_{n=0}^{m} \alpha_n \alpha^n = 0 \qquad (13)$$

The quantity α, by which the length of the crack can be found:
$1 = R(\sqrt{\alpha} - 1)$, is determined by (13). The coefficients a_n are found
by means of a system of (m+1) equations. This system in conjunction

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Brittle fracture of ...

with (13), yields p/σ_0 (σ_0 being the constant stress between the sides of the cracks which attract each other). Thus, an approximate relationship is obtained between the length of the crack, the load and the dislocation density-distribution. The maximum distance between the crack sides is

$$\lambda(R) = \frac{\sigma_0}{D} R \sum_{n=0}^{m} \frac{a_n}{2n + 1} \left[1 - \left(\frac{L}{R}\right)^{2n+1} \right]$$

(14)

Plots of $1/R$ versus p/σ_0 and of $\lambda(R)D/R\sigma_0$ versus p/σ_0 are shown. These graphs are used for determining the critical load p_k at which fracture occurs. Depending on $\delta D/R\sigma_0$, the critical load varies between $\frac{1}{3}\sigma_0 \leqslant p_k \leqslant \sigma_0$. With a given constant δ, ($\delta D/\sigma_0$) $p_k \rightarrow \frac{1}{3}\sigma_0$ with Card 6/7

Brittle fracture of ...

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S/021/62/000/002/006/010
D299/D304

large R, and $p_k \to \sigma_0$, with $R \to 0$. There are 3 figures and 5 Soviet-bloc references.

ASSOCIATION: Instytut mashynoznavstva ta avtomatyky AN UkrRSR (Institute of the Science of Machines and Automation of the AS UkrRSR)

PRESENTED: by Academician H. M. Savin of the AS UkrRSR

SUBMITTED: June 22, 1961

Card 7/7

S/879/62/000/000/028/088
D234/D308

AUTHORS: Leonov, M. Ya., Vitvitskiy, P. M. and Yarema, S. Ya.
            (L'vov)

TITLE: Theoretical and experimental investigation of elastic-plas-
            tic deformations during the extension of a plate with a
            slot

SOURCE: Teoriya plastin i obolochek; trudy II Vsesoyuznoy konfe-
            rentsii, L'vov, 15-21 sentyabrya 1961 g. Kiev, Izd-vo
            AN USSR, 1962, 196-199

TEXT: The elastic-plastic deformation is reduced to the deforma-
tion of an ideal elastic body whose displacements are discontinuous
on certain surfaces. With the aid of this model the authors solve
the problem of an infinite plate with a slot, subject to forces
perpendicular to the slot. N. I. Muskhelishvili's method is used.
The critical load is found to be $\sqrt{(1 - 2/)}$ multiplied by critical
stress. The experiments, carried out on steel plates, gave results
coinciding with the theoretical data in the initial stages except
in the incubation period. There are 2 figures.
Card 1/1

S/020/63/148/003/010/037
B104/B186

AUTHORS: Leonov, M. Ya., Academician AS KirSSR, Vitvitskiy, P. M.,
            Yarema, S. Ya.

TITLE: Gliding strips occurring due to the stretching of plates
          having crack-like concentrators.

TEXT: Thin plates (200·300 mm) made of soft sheet steel that has crack-like
stress concentrators in a direction perpendicular to the concentrators pro-
duced by cutters are stretched. The gliding strips could be observed by eye.
Four stages of deformation were estbalished: 1) A stage of incubation with
no plastic deformation occurring; 2) the stage, which is characteristic of
the first appearance of mat spots at the ends of the cracks; 3) the stage,
which is characteristic of the appearance of gliding strips, 20 - 40 mm long,
that start from the end of the crack and make an angle of $47 - 54°$ with the
axis of the concentrators; 4) the stage, which is characteristic of the
simultaneous appearance of gliding strips at many spots combining into a
gliding band. The results of an analytic investigation of the stages using
Card 1/2

Gliding strips occurring ...

S/020/63/148/003/010/037
B104/B186

the method developed by N. I. Muskhelishvili (Nekotoryye osnovnyye zadachi matematicheskoy teorii uprugosti - Some basic problems of the mathematical theory of elasticity, M., 1954) show satisfactory agreement with experiment if an ideal plastic-elastic material is assumed. Deviations between the angle of the gliding bands and the load at which these occur are attributed to the finiteness of the width of these bands, and to the solidification of the deformed material in the vicinity of the crack ends. There are 4 figures.

SUBMITTED: February 5, 1962

Card 2/2

VITVITSKIY, V.M.; GODUN, V.M.; KIMEL'BLAT, M.A.

Change in the sensitivity of dysentery agents to some antibiotics in
Ivano-Frankovsk between 1958 and 1963. Antibiotiki 9 no.12:1108-1110
D '64.   (MIRA 18:7)

1. Kafedra mikrobiologii (zav. - prof. T.I.Ivanova) Ivano-Frankovskogo
meditsinskogo instituta i Ivano-Frankovskaya infektsionnaya klinicheskaya
bol'nitsa (glavnyy vrach Ye.I.Gulyayevskaya).

VITVITSKIY, V.M.

Sensitivity of bacteria from the Proteus group to various antibiotics and their combinations. Antibiotiki 9 no.8: 744-748 Ag '64.   (MIRA 18:3)

1. Kafedra mikrobiologii (zav. - prof. T.I. Ivanova) Ivano-Frankovskogo meditsinskogo instituta.

VITVITSKIY, V.M.

Adaptation of Proteus cultures to some antibiotics and their
combinations. Antibiotiki 10 no. 10:908-913 O '65.
(MIRA 18:12)

1. Kafedra mikrobiologii (zav. - prof. T.I. Ivanova) Ivano-
Frankovskogo meditsinskogo instituta. Submitted Nov. 2, 1964.

VITVITSKIY, Ye.V., inzh. (g.L'vov)

Tractor-mounted shrub cutter. Put' i put.khoz. 5 no.6:24-25
(MIRA 14:8)
Je '61.
(Railroads--Equipment and supplies)

VITYAZEV.P., inzh.

Maintenance sercicing of automobiles on conveyer lines. Avt.transp.
39 no.6:17-18 Je '61.   (MIRA 14:7)
    (Motor vehicles—Maintenance and repair)
                              (Assembly-line methods)

CHEPURIN, V., shofer (Moskva); LAVRENT'YEV, A., avtolyubitel' (Syktyvkar);
GRIGOR'YAN, V., shofer (Tbilisi); VASIL'YEV, A., inzh. po mekhanizatsii;
RADVOGIN, M. (Moskva); VITYAZEV, P., inzh. (Chelyabinsk); YAKOVLEV, N.
(Chirchik); VINOKUROV, A.; BUBLIK, T., shofer; LOKOT', I., avtoslesar'

Automobile drivers speak today. Izobr.i rats. no.9:9-11 S '62.
(MIRA 16:3)

1. "Sel'khoztekhnika", Chelyabinskaya obl. (for Vasil'yev). 2. Nachal'nik
tsekha Konservnogo zavoda, g.Temryuk Krasnodarskogo kraya (for
Vinokurov). 3. Konservnyy zavod, g. Temryuk Krasnodarskogo kraya (for
Bublik, Lokot').
(Automobile engineering—Technological innovations)

VITYAZEV, P., inzh.

Hydraulic apparatus for cold riveting of automobile frames. Avt.
transp. 38 no. 5:52-53 My '60.   (MIRA 14:2)

1. Chelyabinskoye avtoupravleniye.
         (Rivets and riveting)
              (Motor vehicles—Design and construction)

600

VITYAYEVA4S818

1.   UDO'F'IKO, V. V., VITYAV'. S. I.

2.   USSR (600)

"The Viscosity of the Ketones -- Organic Acids Systems,
V," Zhur. Obshch. Khim., 9, No. 19, 1939. Laboratory of
physical Chemistry, Central Asiatic State University,
Received 8 April 1939.

9.   Report U-1626, 11 Jan 1952.

VITYAYEVA, S.I.; MARKMAN, A.L.

Polarographic study of keto - enol isomerism on the example of
acetonylacetone. Dokl. AN Uz. SSR no.8:33-36 '57.   (MIRA 11:5)

1.Sredneaziatskiy politekhnicheskiy institut. Predstavleno chlenom-
korr. AN UzSSR I.P. TSukervanikom.
                    (Hexanedione) (Polarographic analysis)
                    (Isomerism)

VIITHZEVH, V.M.

ALEKSANDROVA-ZAORSKAYA, V.V.; ARNOL'D, V.S.; ADAMCHUK, V.A.; BARANSKIY,
    N.N.; BARDIN, I.P.; VASYUTIN, V.F.; LISYAZHKA, V.A.; GORDONOV,
    L.Sh.; DOLGOPOLOV, K.V.; ZENKOVA, Z.A.; NEMCHINOV, V.S.; OBRU-
    CHEV, V.V.; RYAZANTSEV, S.N.; SOKOLOV, A.V.; STEPANOV, P.N.;
    CHERDANTSEV, G.N.

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VITYAZEVA, V.A.

VITYAZEVA, V.A.

Conference on the over-all unilization of the natural resources
of Ukhta. Izv. AN SSSR. Ser. Geog. no.3:145-148 My-Je '57.
        (Ukhta--Natural resources)   (MIRA 10:12)

VITYAZEVA, Valentina Aleksandrovna, ; MEZENTSEV,. ., red.; TSIVUNIN, I..
tekhn.red.

[Main problems in developing the productive forces of the
Komi A.S.S.R. in the seven-year plan] Osnovnye problemy raz-
vitiia proizvoditel'nykh sil Komi ASSR v semiletke. Syktyv-
kar, Komi knizhnoe izd-vo, 1960. 27 p.
                                              (MIRA 14:5)

1. Zaveduyushchiy otdelom ekonomiki Komi filiala AN SSSR (for
Vityazeva).
   (Komi A.S.S.R.--Industries) (Komi A.S.S.R.--Economic policy)

ALAMPIYEV, P.M.; VITYAZEVA, V.A.; LISTENGURT, F.M.; MAKSAKOVSKIY, V.P.;
        POKSHISHEVSKIY, V.V., prof.; SOLOV'YEVA, M.G., dotsent;
        LYALIKOV, N.I., dotsent, red.; ZAK, A.L., tekhn.red.

        [Economic geography; toponymy. Collected articles] Ekonomicheskaia
        geografiia: Toponimika; sbornik statei. Moskva, 1960. 169 p.
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        1. Moscow. Moskovskiy gosudarstvennyy pedagogicheskiy institut.
        Geografo-biologicheskiy fakul'tet.
                        (Geography, Economic)
                   (Europe, Eastern--Names, Geographical)

VITYAZEVA, V.A.

Problems concerning comprehensive utilization of natural re-
sources in the Komi A.S.S.R. Izv.AN SSSR.Ser.geog. no.3:55-61
My-Je '60.   (MIRA 13:6)

1. Komi filial AN SSSR.
            (Komi A.S.S.R.—Industries)

VITYAZEVA, V.A.

Main problem of the industrial development of the near North.
Izv. Komi fil. Geog. ob-va SSSR no.9:5-16 '64.

(MIRA 18:5)

VITYAZEVA, V.A.

Economic regionalization of the Komi A.S.S.R. Izv.Komi fil.
Geog.ob-va SSSR no.7:3-14 '62.   (MIRA 15:12)
              (Komi A.S.S.R.—Economic zoning)

VAVILOV, P.P.; VITYAZEVA, V.A.

The Komi Branch of the Academy of Sciences of the U.S.S.R.
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      (Komi A.S.S.R.—Geographical research)

VITYN, IA. IA.

VITYN, IA. IA.
O pochvakh Kubanskoi oblasti, ikh proiskhozh-
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Ekaterinoslav, 1918---   DLC: HD9575,RC3K3

SO: LC, Soviet Geography, Part II, 1951, Unclassified

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tsentr. soiuza uchrezhdenii melkago credita. 1918. 46 p. (50-40902)

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1. Soils - Russia - Kuban (Province

VITYN'SH, YA.

Vitn'sh, Ya. "An examination of the soils of experimental establishments",
Izvestiya akad. nauk Latv. SSR, 1949, No. 4, p. 21-48, (In Latvian, resume
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SO: U-4392, 19 August 53, (Letopis 'Zhurnal 'nykh Statey, No 21, 1949).

VITYN'SH Ya. YA.

24822.   VITYN'SH, Ya. Ya.   Pitanie Podzemnykh Vod V Svyazi S Tipami Pochv. Trudy
Yubkeynoy Sessii, Posvyashch Stoletiy So Dnya Rozhdeniya Dokuchayeva, M. L.,
1949 S 182-83

SO: Letopis' No. 33, 1949

VESNIN, V.V.; VIYRA, V.I.; KARTASHOV, I.P.

History of the formation of the glacial relief in the region
of Lake Jack London. Dokl. AN SSSR 147 no.3:667-670 N '62.
(MIRA 15:12)

1. Ten'kinskaya kompleksnaya ekspeditsiya Severo-Vostochnogo
geologicheskogo upravleniya i Severo-Vostochnyy kompleksnyy
nauchno-issledovatel'skiy institut Sibirskogo otdeleriya AN SSSR.
Predstavleno akademikom I.P. Gerasimovym.
            (Jack London Lake region—Glacial epoch)

VITYUGIN, V.M.; FUKS, O.A.

Distribution of chromium oxide in the products of treatment of ilmenite. Izv. TPI 126:98-101 '64.   (MIRA 18:7)

VITYUGIN, V.M.; PLOTNIKOVA, Ye.S.

Deashing of concentrates of sulfite-distiller's grain. Izv. TPI
126:102-105 '64.   (MIRA 18:7)

VITYUGIN, V. M.; PROKHOROVICH, V. A.; BOGMA, A. S.

Nodulizing iron ore concentrates with cast iron filings.
Izv. vys. ucheb. zav.; chern. met. 7 no.6:26-28 '64.(MIRA 17:7)

1. Tomskiy politekhnicheskiy institut.

VITYUGOV, A.I.

Therapeutic tactics in injuries to the meniscus of the knee joint.
Ortop.,travm.i protez.   22 no.4:73 Ap '61.   (MIRA 14:11)
(KNEE—WOUNDS AND INJURIES)

VITYUGOV, I.A.

Experimental observations in injury or partial or complete removal of
the menisous of the knee joint. Ortop. travm. protez., Moskva-19 no.6:
34-36 N-D '58.   (MIRA 12:1)

1. Iz kliniki travmatologii i ortopedii (zav.- prof. L.O. Shkol'nikov)
Stalinskogo (Kemerovskoy obl.) gosudarstvennogo instituta dlya usover-
shenstvovaniya vrachey (dir. - dots. G.L. Starkov).
        (KNEE, wds. & inj.
            meniscus, partial & complete removal in sheep & dogs (Rus))

VITYUGOV, I.A.

New signs of damages to the meniscus of the knee joint.
Ortop.travm. i protez. 19 no.4:60 Jl-Ag '58   (MIRA 11:11)

1. Iz kliniki travmatologii i ortopedii (zav. - prof. L.G. Shkol'
nikov) Stalinskogo Gosudarstvennogo instituta dlya spetsializatsii
i usovershenstvovaniya vrachey im. V.I Lenina.
          (KNEE JOINT--DISEASES)

VITYUGOV, I. A., Cand Med Sci (diss) — "A new modification of the method of

arthropneumography in injuries to the menisci of the knee joint". Leningrad,

1960. 16 pp (Central Sci Res Inst of Med Radiology of the Min Health USSR),

300 copies (KL, No 10, 1960, 135)

SHKOL'NIKOV, L.G., prof.; VITYUGOV, I.A., assistent

Clinical data on cardiac and pericardial wounds. Khirurgiia 35
no.1:125-128   Ja '59.
(MIRA 12:2)

1. Iz kliniki travmatologii i ortopedii (zav. - prof. L.G. Shkol'-
nikov) Stalinskogo gosudarstvennogo instituta dlya spetsializatsii
i usovershenstovovaniya vrachey (dir. - dotsent G.L. Starkov).
      (HEART, wds. & inj.
           case reports (Rus))
      (PERICARDIUM, wds. & inj.
           same)

VITYUGOV, I.A.

Significance of arthropneumography in diagnosis of injuries of menisci of the knee joint. [with summary in English]. Vest. rent. i rad. 33 no.5:49-55 S-O '58   (MIRA 11:11)

1. Iz kafedry ortopedii i travmatologii (zav. - prof. I.O. Shkol'nikov) Stalinskogo instituta dlya usovershenstvovaniya vrachey (dir. - dotsent G.L. Starkov).
                (KNEE wds. & inj.
                        meniscal, diag. value of arthrpneumography (Rus))

VITYUGOV, I.A.

Some cases of osteochondritis dissequans (Koenig's disease). Ortrop.
travm.i protez. 21 no.3:57-59 Mr '60.   (MIRA 14:3)

1. Iz kliniki travmatologii i ortopedii (zav.kafedroy – prof. L.G.
Shkol'nikov) Stalinskogo (Kemerovskoy oblasti) instituta usovershen-
stvovaniya vrachey (dir. – dotsent G.L.Starkov).
                       (OSTEOCHONDROSIS)

VITYUGOV, I.A.

Accidents among machine couplers. Ortop.travm. i protez. no.3:71
My-Je '55.   (MLRA 8:10)

1. Iz kliniki ortopedii i travmatologii (zav.prof. L.G.Shkol'nikov)
Stalinskogo (Kemerovskoy obl.) instituta usovershenstvovaniya
vrachey dir.prof. A.N.Araviiskiy)
        (AGRICULTURE,
            accid. in tractor trailer workers)
        (ACCIDENTS,
            in tractors trailer workers)

VITYUGIN, V.M.; ATKHIN, G.F.

Wood pitch as a binder for coal briquetting. Gidroliz.i lesokhim.prom.
12 no.2:7-9 '59.
(MIRA 12:3)

1. Tomskiy politekhnicheskiy institut.
               (Wood tar) (Briquets (Fuel))

SHKOL'NIKOV, L.G., prof. (Novokuznetsk, Kemerovskoy oblasti, prospekt
       Metallurgov, d.34, kv.27); VITYUGOV, I.A., kand. med. nauk;
       ROSTOVSKAYA, M.P.

Surgical treatment of ruptures of the cruciform ligaments of
the knee joint. Ortop., travm. i protez. 25 no.6:16-21 Je '64.
                                                   (MIRA 18:3)
1. Iz kafedry travmatologii i ortopedii (zav. - prof. L.G.
Shkol'nikov) Novokuznetskogo instituta usovershenstvovaniya
vrachey (dir. - dotsent G.L. Starkov).

VITYUK, A.N.

Approximate integration of systems of ordinary differential
equations based on S.A. Chaplygin's method. Dif. urav. 1
no.7:923-928 Jl '65.   (MIRA 18:8)

1. Odesskiy gosudarstvennyy universitet imeni I.I. Mechnikova.

L 00315-66   EWT(d)   IJP(c)

ACCESSION NR: AP5019616

UR/0376/65/001/007/0923/0928

AUTHOR: Vityuk, A. N.

TITLE: On the approximate integration of systems of ordinary differential equations by the Chaplygin method

SOURCE: Differentsial'nyye uravneniya, v. 1, no. 7, 1965, 923-928

TOPIC TAGS: ordinary differential equation, approximation method, Cauchy problem

ABSTRACT: A method is proposed for the construction of an approximate solution for the system

$$y_i' = f_i [y] = f_i(x, y_1, y_2, \ldots, y_n), \quad (i = 1, 2, \ldots, n) \qquad (1)$$

under the initial conditions

$$y_i(x_i) = y_{i0}, \qquad (2)$$

where y_{i0} are arbitrary constants and $x_i \in (a, b)$. Sequences for the solution are constructed on the basis of a theorem due to Chaplygin on differential inequalities for the equation $y' = f(x, y)$, and they are proved to converge uniformly to the

Card 1/2

L 00315-66
ACCESSION NR: AP5019616

3

solution of (1), (2). Orig. art. has: 37 formulas.

ASSOCIATION: Odesskiy gosudarstvennyy universitet imeni I. I. Mechnikova
(Odessa State University)

SUBMITTED: 20Feb65

ENCL: 00

SUB CODE: MA

NO REF SOV: 005

OTHER: 000

Card 2/2

VITYUK, A.N. [Vitiuk, O.N.]

Upper and lower bound approximations to the solution of systems of ordinary differential equations of the first order unsolved with respect to the derivatives. Dop. AN URSR no.3:284-287 '65.

(MIRA 18:3)

1. Odesskiy gosudarstvennyy universitet.

LANSKAYA, L.A.; VITYUK, D.M.; ROZHANSKAYA, L.I.

Some data on the chemical composition of marine planktonic algae
cultivated under artificial and natural illumination. Trudy SBS
17:346-350 '64.   (MIRA 18:6)

VITYUK, D.M.

Methods of determining the raw fat in plankton. Trudy SBS 17:
304-308 '64.   (MIRA 18:6)

VITYUK, D. M.

3

The drop error in microtitration — D. M. Vityuk, Trudy
Kiyev, Filiala Akad. Nauk S.S.R., 5, No. 1-81-6(1953).—
To reduce the drop size of the titrant and therefore the error
in microtitrations, the rate of flow through the buret toward
the end of the titration was decreased and small amts. of an
indifferent substance that lowered the surface tension were
added to the titrant. Thus, addn. of approx. 0.1% Na
oleate practically eliminated the drop error in the microtitra-
tion of a Ag soln. with NH₄CNS.   Gary Gerard

VITYUK, K., kand.tekhn.nauk

Compensation of reactive loads of harbor cranes. Rech. transp.
20 no.8:16-19 Ag '61. (Electric cranes) Rech. transp.
(MIRA 14:10)

VITYUK, K.T., kand.tekhn.nauk

Some problems of the most efficient use of using diesels in diesel-electric propeller units.   Trudy LIIVT no.26:231-235 '59.
(MIRA 14:9)

(Ship propulsion) (Diesel engines)

VITTUK, K.T., dotsent, kand.tekhn.nauk

Determining the power on the terminals of electric motor
according to the degree of loading of the actuating mechanism.
Izv.vys.ucheb.zav.; energ. 3 no.5:54-59 My '60.
(MIRA 13:6)

1. Leningradskiy institut vodnogo transporta. Predstavlena
kafedroy elektrifikatsii promyshlennykh predpriyatiy i
ustanovok.   (Electric motors)

VITYUK, K.T., kand. tekhn. nauk, dotsent

Standardizing the control systems of portal and floating cranes.
Trudy LIVT no.71:5-8 1964.
(MIRA 18:10)

VITYUK, K. T.

Vityuk, K. T.

"Automatic regulation of the power circuit of diesel electric paddle-wheel
mechanisms of inland shipping vessels." Min River Fleet USSR. Leningrad
Inst of Water Transport Engineers. Leningrad, 1956. (Dissertation for the
Degree of Candidate in Technical Sciences).

So: Knizhnaya letopis'
No. 25, 1956. Moscow

SELIVERSTOV, V.M., kand.tekhn.nauk; VITYUK, K.T., kand.tekhn.nauk

Automatic control system of an auxiliary boiler on the
motorship "Kazbek." Trudy LIVT no.10:45-56 '61.   (MIRA 14:9)
     (Boilers, Marine)   (Automatic control)

KOVALENKO, G.D., agronom po zashchite rasteniy (Cherkasskiy rayon);
TSURA, A.A., agronom po zashchite rasteniy (Chigirinskiy rayon,
Cherkasskoy oblasti); VITYUK, S.A., agronom po zashchite rasteniy
(Litinskiy rayon, Vinnitskaya obl.); BRUNNER, Yu.N., kand.biolog.
nauk (Poltava); KRUGLOVA, M.G., agronom po zashchite rasteniy
(Poltava)

From the practices in controlling the pea weevil. Zashch.rast.ot
vred. i bol. 7 no.4:9-13 Ap '62.   (MIRA 15:12)
                    (Pea weevil—Extermination)

VITYUK, S.A., agronom po zashchite rasteniy

Organize the protection of private orchards. Zashch.rast.ot vred.
1 bol. 3 no.6:28-29 N-D '58.   (MIRA 11:12)

1.Litinskaya mashinno-traktornaya stantsiya, Vinnitskaya oblast'.
   (Fruit--Diseases and pests) (Spraying and dusting)

VITYUKOV, V., kapitan, komandir brigady

Toward new frontiers. Voen. vest. 41 no.7:9 Jl '61.
(MIRA 15:1)

(Artillery, Field and mountain)

VITYUKIN, B.T.

PHASE I BOOK EXPLOITATION   SOV/4339

Sovetskaya antarkticheskaya ekspeditsiya, 1955-

Pervaya kontinental'naya ekspeditsiya, 1955-1957 gg.; nauchnyye rezul'taty (First
Continental Expedition, 1955-1957; Scientific Results) Leningrad, Izd-vo
"Morskoy transport," 1959. 161 p. 2,000 copies printed. (Series: Its
Materialy, tom 2)

Sponsoring Agency: Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy
Institut.

Ed.: M.M. Somov, Doctor of Geographical Sciences; Tech. Ed.: L.P. Drozhakina.

PURPOSE: This book is intended for polar specialists, geographers, geologists,
meteorologists, and geophysicists.

COVERAGE: This book is Volume 2 of a multivolume work containing scientific data
collected by the First Soviet Continental Expedition to the Antarctic (1955-
57), sent out under the auspices of the Arkticheskiy i antarkticheskiy nauchno-
issledovatel'skiy Institut (Arctic and Antarctic Scientific Research Institute)
as part of the IGY program. The purpose of the expedition was to survey an
area between 74 to 119°E longitude and 69 to 70°S latitude (an area of about 1
million square kilometers), to develop methods and techniques for field studies
applicable to local conditions, and to initiate a systematic study of the
natural phenomena of the region. Ground and aerial observations were conducted
in the more interesting areas around and between Mirnyy and Pionerskaya, in
the three cases of Grishin, Bunger, and Vanifold, on the Shackleton Ice Shelf,
Drygalski Island, and a number of stations (Laisdzem, Oazis, etc.). Geological,
geographic, and geophysical observations were made at the Mirnyy Observatory
and at the Pionerskaya and Oazis research stations. No personalities are men-
tioned. There are 22 references.

Guser, A.M., and N.P. Rusin.   Meteorological Characteristics of the Glacier
Slope of East Antarctica   66

Vityuzin, B.T., E.R. Dolginov, A.P. Kapitsa/Tu.N. Model'. Contemporary
Ice Cover of East Antarctica and Its Dynamics   73

Koshchenko, Ye.A. Ice Region of the Davis Sea and Adjacent Regions of the
Ocean   93

Korotkevich, Ye.S. Biogeographic Characteristics of the Expedition's Area of
Operation   104

Rubin, G.V. Ionospheric Observations   111

Rubin, G.V. Ionospheric Observations   115

Medvedev, P.P. Magnetic Field in the Region of Mirnyy   115

Maksimov, P.P., and V.A. Troitskaya. Investigation of Telluric Currents in the
Region of Mirnyy   135

Sytinskiy, A.D. Seismic Observations in Mirnyy   153

Palayev, N.N. Medical Studies in East Antarctica   157

AVAILABLE: Library of Congress (G860.S58)

VITYUTNEV, O.I., inzh.

Supply cars with brake platforms. Bezop.truda v prom. 1 no.10:33-34
                                                        (MIRA 10:11)
O '57.

1. Dzhezkazganskoye rudoupravleniye.
                        (Conveying machinery)

VITYUTNEV, P.I., gornyy tekhnik.

Our complaints about electric locomotive designers. Bezop.truda
v prom. 1 no.8:38 Ag '57.   (MLRA 10:8)
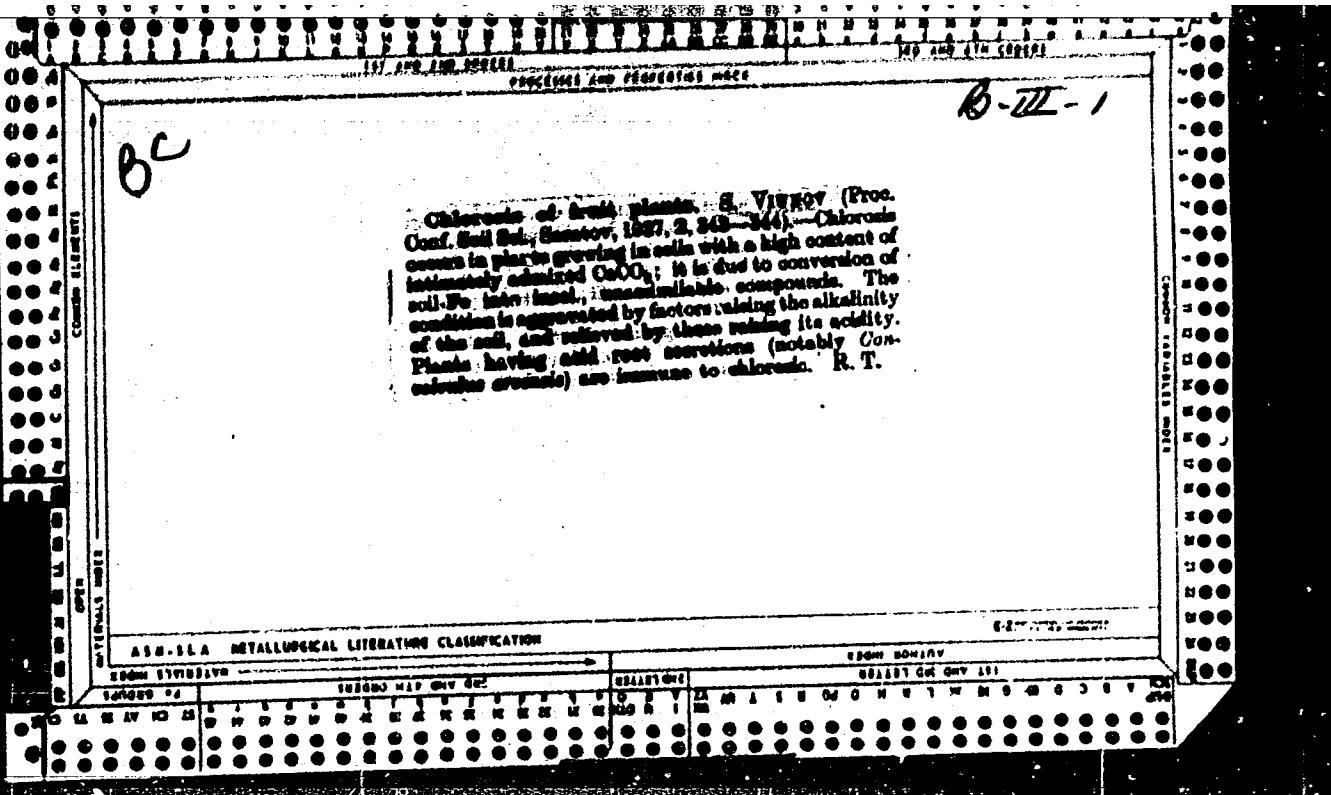
1.Dzhezkazganskoye rudoupravleniye.
                    (Electric locomotives)

SHINKARENKO, M.I., inzh.; VITZON, A.A., inzh.

Modernization of rolling mills. Mashinostroenie no.2:28-29
Mr-Ap '65.   (MIRA 18:6)

B-III-1

BC

Chlorosis of fruit plants. S. Vinkov (Proc. Conf. Soil Sci., Saratov, 1937, 2, 349—364).—Chlorosis occurs in plants growing in soils with a high content of intimately admixed $CaCO_3$; it is dued to conversion of soil-Fe into insol., unassimilable compounds. The condition is aggravated by factors raising the alkalinity of the soil, and relieved by those raising its acidity. Plants having acid root secretions (notably Convolvulus arvensis) are immune to chlorosis. R. T.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

SVYATUKHIN, M.V.; BODAREV, A.A.; VIUNSKOVSKIY, D.N.

Effect of dextran on the development of edema in burned tissues and
on hemoconcentration in extensive burns. Probl. gemat. i perel. krovi
5 no. 4:39-44 Ap '60.   (MIRA 14:1)
                    (BURNS AND SCALDS) (DEXTRAN)

V'IUSHKOV, P. V.

V'iushkov, P. V.   "The Elastic Static Gravimeter."   Trudy Instituta Geologii Sara-
tovskogo Gosud.   Universiteta, vol. 2, No. 2/3, 1939, p. 290-294.

VIVADA, Marjan.

"The Yugoslav trade unions are coming out for international solidarity." Vsem.prof.dvizh. no.4:9 Ap '56.   (MLRA 9:8)

1. Chlen sekretariat TSentral'nogo soveta Soyuza profsoyuzov Yugoslvii, na IV s"yezde Vseobshchey ital'yanskoy konfederatsii truda.
                    (Yugoslavia--Trade unions)

VIVAL'KO, I.G.

Effect of organic and mineral fertilizers on the crop, accumulation
and yield of rubber, of kok-saghyz. Dop.AN URSR no.3:51-58 '49.
(MIRA 9:9)

1.Institut fiziologii roslin i agrokhimii AN URSR. Predstaviv diysniy
chlen AN URSR O.I.Dushechkin.
                (Kok-Saghyz)

VIVALKO, I. G.;   SHILOV, YE. A.;   YASNIKOV, A. A.

"Mechanism of rubber and carotene biosynthesis. "

report submitted for the IUPAC 2nd International Symposium on the
Chemistry of Natural products, Prague, Czech., 27 Aug - 2 Sep 62

CA VIVAL'KO, I. Gr.

IID

Carbohydrate exchange in kok-saghyz. I. G. Vival'ko. *Dopovidi Akad. Nauk Ukrain. RSR* 1950, No. 1, 81-4. — Carbohydrates were detd. in leaves and roots of the kok-saghyz plant of the Nar-tshin variety during the vegetative period of 1948. The total carbohydrate content in leaves reached a max. (30.7%, by dry wt. of leaf) on July 31, then fell to 15 m% by Sept. 6. Glucose (I) and fructose (II) were the main monosaccharides. I predominating. I also predominated in the hydrolysis mixts. from the hydrolyzable sugars. The carbohydrate content of roots reached a max. (51.54%) on July 31, and remained essentially const. thereafter. The inulin content started at 0.90% (July 10), reached a max. of 30.31% by Sept. 6, and dropped to 28.12% by Sept. 26. Roots contained little, if any, monosaccharides. Among polysaccharides were dextrans, and other polyfructosans and some sucrose. It is indicated that the inulin and glucosed sugars in roots are interdependent.   Morris Senkus

VIVAL'KO, I.G.; KOVALENKO, G.P.; LEPPIK, L.A.

Effect of various nitrogen fertilizers on the increase of flax productivity. Dop.AN URSR no.6:556-559 '55.   (MIRA 9:7)

1.Institut fiziologii roslin ta agrokhimii AN URSR. Predstaviv diysniy chlen AN URSR O.I.Dushechkin.
        (Ukraine--Flax) (Fertilizers and manures)

VIVAL'NYUK, L. N. Cand Phys-Math Sci -- (diss) "Significance of the
activity of a professor of the University of Kiev, Academician D.
A. Grave,in the development of algebra in the Soviet Union." Kiev,
1960, 14 pp, (Society of tho Scientific Council of the Institutes of
Mathematics, Physics, and the Physics of Metals of the Acad Sci
UkSSR), 250 copies, (KL, 31-60, 140)

L 26027-66   EWT(m)   JL/JG

ACC NR: AP6012775   SOURCE CODE: UR/0226/66/000/004/0069/0073

AUTHORS: Verkhoglyadova, T. S. (deceased); Vivchar, O. I.; Gladyshevskiy, Ye. I.

ORG: Institute for the Study of Materials,   AN UkrSSR (Institut problem materialovadeniya AN UkrSSR); L'vov State University im. I. Franko (L'vovskiy gosudarstvennyy universitet)

TITLE: Solubility of transition metal disilicides in molybdenum and tungsten disilicide

SOURCE: Poroshkovaya metallurgiya, no. 4, 1966, 69-73
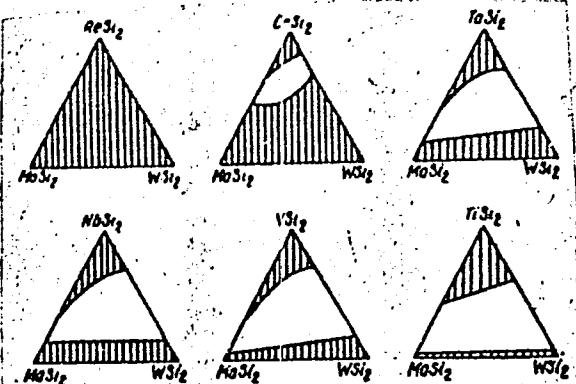
TOPIC TAGS: molybdenum compound, tungsten compound, transition element, phase diagram

ABSTRACT: The phase diagrams of the binary systems $MoSi_2$ - $ReSi_2$ and WSi_2 - $ReSi_2$ and the ternary system $MoSi_2$ - WSi_2 - $MeSi_2$ (where Me = Ti, V, Nb, Ta, or Cr) were determined. The nature of the solid phase was determined by x-ray and microstructural methods. The experimental results are presented in graphs and tables (see Fig. 1). The system $MoSi_2$ - $ReSi_2$ exhibits a continuous series of solid solutions, and the systems WSi_2 - $ReSi_2$ and $MoSi_2$ - WSi_2 - $ReSi_2$ show unlimited reciprocal solubility. The systems $MoSi_2$ - WSi_2 - $MeSi_2$ show only limited solubility in the solid state. It is concluded that the greater solubility of disilicides in WSi_2 as compared with

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L 26027-66

ACC NR: AP6012775   0

Fig. 1. Regions of solid
solution formation in the
ternary systems $MoSi_2$ -
WSi_2 - $MeSi_2$, temperature
1400C.

$MoSi_2$ is associated with the decreased stability of the d-electronic level in W atoms.
Orig. art. has: 1 table and 5 figures.

SUB CODE: 11/   SUBM DATE: 15Jul64/   ORIG REF: 006/   OTH REF: 001

Card 2/2

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Bang's Disease.

Our work in improving health conditions at farms in which brucellosis was prevalent. Veterinariia 29 no. 3:31 Mr '52.

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L 43847-65   EWT(1)/EWP(m)/EWT(m)/EPF(c)/EPA(w)-2/~   Pd-1/Pab-10/Pr-4   RWH/WG

ACCESSION NR: AP501067

AUTHORS: Vivdenko, M. I.; Shabalin, K. N.

TITLE: On the mechanism of decay of a jet into coarse droplets

SOURCE: Inzhenerno-fizicheskiy zhurnal, v. 8, no. 4, 1965, 445-446

TOPIC TAGS:

ABSTRACT: The break-up or decay of a water jet into large drops was studied by means of a 1050-frame-per second high-speed camera. The water jet was 30×10^{-3} m